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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------|-------------|----------------------|---------------------|------------------|
| 10/522,835 | 01/31/2005 | Anne Hupp | PAT-01087 | 6570 |
| 26922 | 7590 | 10/18/2007 | EXAMINER | |
| BASF CORPORATION | | | ABU ALI, SHUANGYI | |
| Patent Department | | | ART UNIT | |
| 1609 BIDDLE AVENUE | | | PAPER NUMBER | |
| MAIN BUILDING | | | 1793 | |
| WYANDOTTE, MI 48192 | | | NOTIFICATION DATE | |
| | | | DELIVERY MODE | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/522,835 | Applicant(s) HUPP ET AL. | |
| | Examiner Shuangyi Abu-Ali | Art Unit 1793 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

(1)

Status of Claims

Claims 1-15 remain for examination.

(2)

Response to Arguments

Applicant's arguments, see page 4, line 1-6, filed 08/02/2007, with respect to acrylate polymer in polymer dispersion (basecoat composition (ii)) is a binder have been fully considered and are persuasive. The rejection of claims 1-15 under 35 U. S. C. 103(a) over U.S. Patent No. 6,093,497 to Wiemann et al., in view of CA 2,154,818 to Stefan et al. has been withdrawn.

(3)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sapper (US 6,284,037) in view of Bergfried (CA 2,154,818).

Sapper discloses an additive for coating formulation with binder used in basecoat materials comprising a nonassociative rheology stabilizer such as exemplified Viscalex HV 30 (like presently used having methacrylic acid content of 40-60 wt %), aluminum pigment, water, polypropylene glycol as nonionic surfactant, and polyurethane binder (col. 4, lines 25-65). Sapper further teaches the use of tertiary amine compounds such as dimethylethanolamine to control pH (col. 4, line 63 to col. 4, line 5). The amounts of mica, nonassociative thickener, and nonionic in the exemplified coating composition overlap with the presently claimed amounts in the coating composition of claim 13.

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Sapper does not disclose preparing a pigment paste without binder comprising metallic pigment, nanoassociative rheology stabilizer, nonionic surfactant, and amine compounds.

Bergfried discloses a pigment concentrate comprising a pigment, 0-2.0 wt % thickener based on polyacrylate (i.e., Sapper's nonassociative stabilizer), 0.1-0.9 wt % nonionic surfactant, 0.1-4.9 wt % amine, and water (page 3, lines 1-27)—wherein the pigment paste is added to binder resin (page 2, lines 9-12).

Given that Sapper discloses a composition comprising aluminium pigment, nonassociative thickener, nonionic surfactant, amine, and water and further given that pigment pastes are known to contain such ingredients before being added to a binder as taught by Bergfried, it would have been obvious to one of ordinary skill in the art to prepare the presently claimed pigment paste before adding to a binder to prepare a coating composition.

With respect to the amount of aluminum pigment, while Sapper discloses an amount of of aluminum pigment in a coating composition less than presently claimed and Bergfried discloses an amount of pigment more than presently claimed, it is considered that the amount of pigment is determined by the desired metallic effect and would have been obvious to one of ordinary skill in the art to utilize a suitable amount of mica in a pigment paste in order to get the desired metallic effect in a final coating comprising the pigment paste.

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2 Claims 1-2 and 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jakubauskas (US 3,980,602) in view of Sapper (US 6,284,037) and Bergfried (CA 2,154,818).

Jakubauskas discloses an aqueous pigment dispersion comprising an acrylic polymer dispersant of methacrylate, acrylate, and methacrylic acid (abstract; col. 16, lines 3-10); metallic flake pigment (col. 2, line 65 to col. 3, line 11) such as aluminum (col. 3, line 48); and typical basic compound such as tertiary amines and diethylethanolamine in an amount sufficient to provide a pH of 7-10 (col. 3, line 58 to col. 4, line 4), wherein the dispersion has a solids content of about 5-80 % and the ratio of pigment to dispersant is 100:1 to 1:100 (col. 2, lines 56-64). With respect to the amount of mica, it is considered that the amount of pigment is determined by the desired metallic effect and would have been obvious to one of ordinary skill in the art to utilize a suitable amount of mica in a pigment paste in order to get the desired metallic effect in a final coating comprising the pigment paste.

Jakubauskas fails to disclose (a) the amount of organic amine like presently claimed and (b) a nonionic surfactant.

With respect to (a), it is the examiner's position that the amount of organic amine is result effective variables because changing it will clearly affect the type of product obtained. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Specifically, Jakubauskas teaches that the amount of organic amine is determined by the desired

pH. Furthermore, Bergfried teaches a suitable amount of amine compound in a pigment paste also comprising polyacrylate thickener is 0.1-4.9 wt % (page 3, lines 1-27).

In view of this, it would have been obvious to one of ordinary skill in the art to utilize appropriate amounts of organic amine, including those within the scope of the present claims, so as to produce desired end results as taught by Bergfried.

With respect to (b), Sapper discloses an acrylic emulsifier like taught by Jakubauskas and teaches that such materials preferably contain fatty alcohol alkoxyates (i.e., nonionic surfactants). Bergfried teaches that a suitable amount of nonionic surfactant in a pigment paste also comprising polyacrylate thickener is 0.1-0.9 wt % (page 3, lines 1-27).

Given that Jakubauskas discloses a pigment with an acrylic emulsifier and further given that such emulsifier preferably used with nonionic surfactants as taught by Sapper, it would have been obvious to one of ordinary skill in the art to utilize a nonionic surfactant in the pigment dispersion of Jakubauskas in amounts taught by Bergfried.

(4)

Conclusion

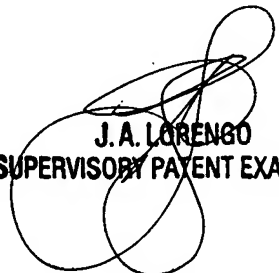
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Such prior art is listed on PTO-892. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuangyi Abu-Ali whose telephone number is 571-272-6453. The examiner can normally be reached on Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA


J. A. LORENCO
SUPERVISORY PATENT EXAMINER